Book review: emissions, pollutants and environmental policy in China: Designing a national emissions trading system

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Bo Miao, *Emissions, Pollutants and Environmental Policy in China: Designing a National Emissions Trading System*. London and New York: Routledge, 2013; xv + 218 pp. with notes, references, and index: 9780415659574, £85.00 (hbk)

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The book under review explores the prospects for the implementation of a national emissions trading system to control different air pollutants in China, in light of the country's deteriorating air quality. At the start of book the author Bo Miao highlights China's difficult situation, striving to fulfil international targets for the reduction of CO_2 emissions, while continuing to satisfy its huge energy consumption and being heavily dependent on coal and fossil fuels. These challenges have spurred Miao to examine whether such significant tasks could be undertaken through the implementation of appropriate regulatory approaches such as a national emissions trading programme.

Comprising six chapters and a brief conclusion, this book is divided into two main thematic areas: the first focusing on China's inadequate environmental performance and the elements affecting it – lack of funds, parcelled intra-agencies competences, scarce support from the judiciary and local governments, ineffective enforcement of a punishment system and persistence of the old mentality of 'pollute first-clean later' – and the second dealing with emissions trading, using both Chinese and international experiences as examples. Secondary sources such as official documents and regulations were employed to identify China's official position on the numerous issues hampering environmental protection efforts with empirical evidence provided to back these sources. Interviews with stakeholders such as government officials and environmental bureau officers were also conducted in an attempt to deepen the insight into the dynamics pertaining to China's air pollution emissions trading system.

After a brief Introduction, Chapter 2 attempts to evaluate whether the decentralized nature of environmental protection will be effective to achieve air pollution control and concludes that the lack of institutional effectiveness of the judiciary in China weakens the capacity of punitive mechanisms, essential to ensure the credibility of a tradable permits regime. Chapter 3 discusses the development of a tradable permit system in other countries and its feasibility for China where institutional inadequacies and a poorly functioning legal system make many doubt that this is the most viable

option. Looking at the Chinese experience with emissions trading, Miao concludes that a national cap and trade scheme could be an effective mechanism for the country /to reduce air pollutants such as SO_2 and NO_x, provided that it can solve issues such as a weak monitoring capacity on the part of the authorities. Two domestic experiments with SO_2 trading are evaluated. Chapter 4 begins by exploring the US and EU's experience with emissions trading, so as to draw useful lessons for future implementation in China. The chapter then dives into the question of how to define the legal nature of SO_2 allowances. Key questions addressed in Chapter 5 concern the design of a trading programme, which could effectively address China's greenhouse gas (GHG) emissions. Finally, Chapter 6 probes into the possibility of implementing a comprehensive multipollutant cap-and-trade system in the Chinese context. In the final part of the chapter the author proposes a concise scheme.

The chapters are generally well structured. However due to the technical nature of the topic, this book requires more than a basic knowledge of environmental policy and schemes involving market-based mechanisms. It is therefore valuable reading for experts, policymakers, practitioners and economists. A more general readership with no basic knowledge of emission trading systems would find the book less accessible.

This study is important because the issue of an emissions trading system for China is crucial not only for the country's own population, in terms of alleviating its severe air pollution, but also for the planet as China faces persistent wake-up calls from the international community, urging it to shoulder its international responsibilities. Furthermore, the literature regarding such issues, specifically addressing the Chinese case, is scarce. While several scholars have written policy articles on SO_2 emissions trading in China (Julia Tao and Daphne Ngar-yin Mah) and on the significance of such pilot projects for a CO_2 emissions trading system, (Miriam Schroder) with numerous others on China's legal framework and environmental protection, up until now no comprehensive manual or book focusing on China's air pollution and emissions trading mechanisms has been produced.

Bo Miao's book is of great importance owing to the urgent nature of the problems at stake as the adverse effects of climate change become evident and China's position as the biggest emitter in term of annual emissions is undisputed, the moderation of the country's GHG emissions is in everybody's interest, given the borderless and ubiquitous nature of air pollution.